

Chapter 12

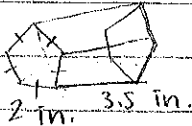
1. Use Euler's Theorem to find value of n .

Faces = n

Vertices = 12

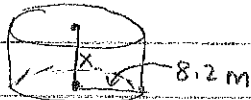
Edges = 18

2.



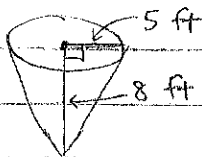
Find LA, SA, and V.

3.



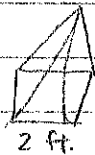
Solve for x , given $SA = 1097 \text{ m}^2$.

4.



Find LA.

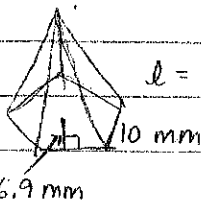
5.



$h = 3 \text{ ft}$

Find SA.

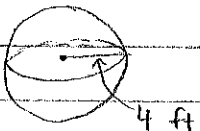
6.



$h = 20 \text{ mm}$

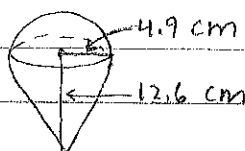
Find V .

7.



Find V.

8.



Find SA.

9.



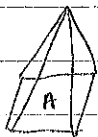
$$S = 150\pi \text{ in.}^2$$

$$V = 250\pi \text{ in.}^3$$

$$\text{Scale Factor} = 1:2$$

Find SA and V of Solid B.

10.



$$S = 1500 \text{ m}^2$$

$$V = 3434.6 \text{ m}^3$$

$$\text{Scale Factor} = 3:1$$

Find SA and V of Solid B.

Ch. 12

$$1. \quad E+2=F+V \quad 18+2=n+12 \quad 20=n+12$$

$$n=8$$



SOHCAHTOA

$$LA = ph \quad LA = 10 \cdot 3.5$$

$$LA = 35 \text{ in}$$

$$SA = LA + 2B \quad 35 + 2(7)$$

$$\tan 36 = \frac{1}{x} \quad x = 1.4 \quad \frac{1}{2}(1.4 \cdot 10) = A \quad A = 7 \times 14$$

$$SA = 49 \text{ in}^2$$

$$V = 24.5 \text{ in}^3$$

$$3. \quad 1097 = 2\pi 8.2x + 2(\pi 8.2^2)$$

$$1097 = 51.52\pi x + 422.48$$

$$674.52 = 51.52\pi x$$

$$x = 4.17 \text{ m}$$

$$4. \quad LA = \frac{1}{2}(10\pi)(9.4)$$

$$LA = 147.7 \text{ ft}^2$$

$$5. \quad SA = \frac{1}{2}(3)(8) + (4)$$

$$SA = 16 \text{ ft}$$

$$6. \quad V = 166.405 \text{ ft}^3$$

$$7. \quad V = \frac{4}{3}\pi 4^3$$

$$V = 67.02 \text{ ft}^3$$

$$8. SA = \frac{1}{2}(4\pi 4.9^2) + \frac{1}{2}(2\pi 4.9)(13.5)$$

$$SA = 150.86 + 207.82$$

$$SA = 358.68 \text{ cm}^2$$

$$9. SA = 300\pi^2$$

$$V = 500\pi^3$$

$$10. SA = 22.36 \text{ m}^2$$

$$V = 10.46 \text{ m}^3$$